

# SEQUENCE LISTING

<110> Yamaguchi, Shotaro

<120> NOVEL PROTEIN-DEAMIDATING ENZYME, MICROORGANISM PRODUCING THE SAME, GENE ENCODING THE SAME, PRODUCTION PROCESS THEREFOR, AND USE THEREOF

<130> A20-128923C

<150> JP Hei. 11-345044

<151> 1999-12-03

<160> 11

<170> PatentIn version 3.0

<210> 1

<211> 20

<212> PRT

<213> Cryseobacterium sp. No. 9670

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Leu Ala Ser Val Ile Pro Asp Val Ala Thr Leu Asn Ser Leu Phe Asn  
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Gln Ile Lys Asn  
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<213> Cryseobacterium sp. No. 9670

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Cys Val Leu Thr  
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 ggatgttatg caagagccca taagatgaga caaatcttaa tgaacaacgg ctatgactgt 180  
 gaaaaacaat ttgtatacgg aaacctaaag gcatcaacag gaacttgctg tgtggcgtgg 240  
 agctaccacg ttgcaatatt ggtaagctat aaaaatgctt cgggagtaac ggaaaaaaga 300  
 attattgata cttcactatt ttcaagcggg cctgtaacag atacagcatg gagaaacgct 360  
 tgcgttaaca cctcttgogg atctgcatcc gtttctctt atgctaatac tgcaggaaat 420  
 gtttattaca gaagtcctag taattcttac ctgtatgaca acaatctgat caataccaac 480  
 tgtgtactga ctaaattttc actgctttcc ggatgttctc cttcacctgc accggatgta 540  
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Gln	Ile	Lys	Asn	Gln	Ser	Cys	Gly	Thr	Ser	Thr	Ala	Ser	Ser	Pro	Cys
			20					25					30		
Ile	Thr	Phe	Arg	Tyr	Pro	Val	Asp	Gly	Cys	Tyr	Ala	Arg	Ala	His	Lys
		35					40					45			
Met	Arg	Gln	Ile	Leu	Met	Asn	Asn	Gly	Tyr	Asp	Cys	Glu	Lys	Gln	Phe
	50					55					60				
Val	Tyr	Gly	Asn	Leu	Lys	Ala	Ser	Thr	Gly	Thr	Cys	Cys	Val	Ala	Trp
65				70					75						80
Ser	Tyr	His	Val	Ala	Ile	Leu	Val	Ser	Tyr	Lys	Asn	Ala	Ser	Gly	Val
			85					90						95	
Thr	Glu	Lys	Arg	Ile	Ile	Asp	Pro	Ser	Leu	Phe	Ser	Ser	Gly	Pro	Val
			100					105					110		
Thr	Asp	Thr	Ala	Trp	Arg	Asn	Ala	Cys	Val	Asn	Thr	Ser	Cys	Gly	Ser
		115				120						125			
Ala	Ser	Val	Ser	Ser	Tyr	Ala	Asn	Thr	Ala	Gly	Asn	Val	Tyr	Tyr	Arg
	130					135					140				
Ser	Pro	Ser	Asn	Ser	Tyr	Leu	Tyr	Asp	Asn	Asn	Leu	Ile	Asn	Thr	Asn
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Cys Val Leu Thr Lys Phe Ser Leu Leu Ser Gly Cys Ser Pro Ser Pro  
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Ala Pro Asp Val Ser Ser Cys Gly Phe  
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Met Lys Asn Leu Phe Leu Ser Met Met Ala Phe Val Thr Val Leu  
-135 -130 -125

act ttt aat tcc tgt gcc gat tcc aac ggg aat cag gaa atc aac 150  
Thr Phe Asn Ser Cys Ala Asp Ser Asn Gly Asn Gln Glu Ile Asn  
-120 -115 -110

gga aag gaa aaa cta agt gta aat gat tct aag ctg aaa gat ttc gga 198  
Gly Lys Glu Lys Leu Ser Val Asn Asp Ser Lys Leu Lys Asp Phe Gly  
-105 -100 -95 -90

aag act gta ccg gta ggg ata gac gaa gaa aac gga atg ata aag gtg 246  
Lys Thr Val Pro Val Gly Ile Asp Glu Glu Asn Gly Met Ile Lys Val  
-85 -80 -75

tca ttt atg tta act gcg caa ttc tat gaa att aag ccg acc aaa gaa 294  
Ser Phe Met Leu Thr Ala Gln Phe Tyr Glu Ile Lys Pro Thr Lys Glu  
-70 -65 -60

aat gag cag tat atc gga atg ctt aga cag gct gtt aag aat gaa tct 342  
Asn Glu Gln Tyr Ile Gly Met Leu Arg Gln Ala Val Lys Asn Glu Ser  
-55 -50 -45

cct gta cac att ttc tta aag cct aat agc aat gaa ata gga aaa gtg 390  
Pro Val His Ile Phe Leu Lys Pro Asn Ser Asn Glu Ile Gly Lys Val  
-40 -35 -30

gag tct gca agt ccg gaa gac gta aga tat ttt aaa acg atc ctg aca 438  
Glu Ser Ala Ser Pro Glu Asp Val Arg Tyr Phe Lys Thr Ile Leu Thr  
-25 -20 -15 -10

aaa gaa gta aaa ggg caa acc aat aaa ttg gcg agt gta att cct gat 486  
Lys Glu Val Lys Gly Gln Thr Asn Lys Leu Ala Ser Val Ile Pro Asp

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gta gct aca tta aat tct tta ttc aat caa ata aag aat cag tct tgc	534				
Val Ala Thr 10 Leu Asn Ser Leu Phe 15 Asn Gln Ile Lys Asn 20 Gln Ser Cys					
ggt acc tct acg gcg tcc tca cca tgc atc aca ttc aga tat cct gta	582				
Gly Thr 25 Ser Thr Ala Ser 30 Pro Cys Ile Thr Phe 35 Arg Tyr Pro Val					
gac gga tgt tat gca aga gcc cat aag atg aga caa atc tta atg aac	630				
Asp Gly Cys Tyr Ala Arg Ala His Lys Met Arg Gln Ile Leu Met Asn 55					
aac ggc tat gac tgt gaa aaa caa ttt gta tac gga aac cta aag gca	678				
Asn Gly Tyr Asp Cys 60 Glu Lys Gln Phe Val 65 Tyr Gly Asn Leu Lys 70 Ala					
tca aca gga act tgc tgt gtg gcg tgg agc tac cac gtt gca ata ttg	726				
Ser Thr Gly Thr 75 Cys Cys Val Ala Trp 80 Ser Tyr His Val Ala 85 Ile Leu					
gta agc tat aaa aat gct tcc gga gta acg gaa aaa aga att att gat	774				
Val Ser Tyr 90 Lys Asn Ala Ser 95 Gly Val Thr Glu Lys Arg 100 Ile Ile Asp					
cct tca cta ttt tca agc ggt cct gta aca gat aca gca tgg aga aac	822				
Pro Ser 105 Leu Phe Ser Ser Gly 110 Pro Val Thr Asp Thr 115 Ala Trp Arg Asn					
gct tgc gtt aac acc tct tgc gga tct gca tcc gtt tcc tct tat gct	870				
Ala Cys Val Asn Thr 125 Ser Cys Gly Ser Ala Ser Val Ser Ser Tyr Ala 135					
aat act gca gga aat gtt tat tac aga agt cct agt aat tot tac ctg	918				
Asn Thr Ala Gly Asn 140 Val Tyr Tyr Arg Ser 145 Pro Ser Asn Ser Tyr 150 Leu					
tat gac aac aat ctg atc aat acc aac tgt gta ctg act aaa ttt tca	966				
Tyr Asp Asn 155 Leu Ile Asn Thr Asn Cys Val Leu Thr Lys Phe Ser 165					
ctg ott tcc gga tgt tct cct tca cct gca ccg gat gta tcc agc tgt	1014				
Leu Leu Ser 170 Gly Cys Ser Pro Ser Pro Ala Pro Asp Val Ser Ser Cys 180					
gga ttt taattaattg ataattttac agcacctgct catttacaga atcagcaggt	1070				
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gctggttatat	1080				

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 <213> Cryseobacterium.sp. No. 9670

[illegible]

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Lys Thr Val Pro Val Gly Ile Asp Glu Glu Asn Gly Met Ile Lys Val  
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Asn Glu Gln Tyr Ile Gly Met Leu Arg Gln Ala Val Lys Asn Glu Ser  
-55 -50 -45

Glu Ser Ala Ser Pro Glu Asp Val Arg Tyr Phe Lys Thr Ile Leu Thr  
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Val Ala Thr Leu Asn Ser Leu Phe Asn Gln Ile Lys Asn Gln Ser Cys  
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Gly Thr Ser Thr Ala Ser Ser Pro Cys Ile Thr Phe Arg Tyr Pro Val  
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Asp Gly Cys Tyr Ala Arg Ala His Lys Met Arg Gln Ile Leu Met Asn  
40 45 50 55

Asn Gly Tyr Asp Cys Glu Lys Gln Phe Val Tyr Gly Asn Leu Lys Ala  
60 65 70

Ser Thr Gly Thr Cys Cys Val Ala Trp Ser Tyr His Val Ala Ile Leu  
75 80 85

Val Ser Tyr Lys Asn Ala Ser Gly Val Thr Glu Lys Arg Ile Ile Asp  
90 95 100

Pro Ser Leu Phe Ser Ser Gly Pro Val Thr Asp Thr Ala Trp Arg Asn  
105 110 115

Ala Cys Val Asn Thr Ser Cys Gly Ser Ala Ser Val Ser Ser Tyr Ala  
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Asn Thr Ala Gly Asn Val Tyr Tyr Arg Ser Pro Ser Asn Ser Tyr Leu  
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Tyr Asp Asn Asn Leu Ile Asn Thr Asn Cys Val Leu Thr Lys Phe Ser  
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Gly Phe  
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*Sub  
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